Small Business Innovation Research/Small Business Tech Transfer

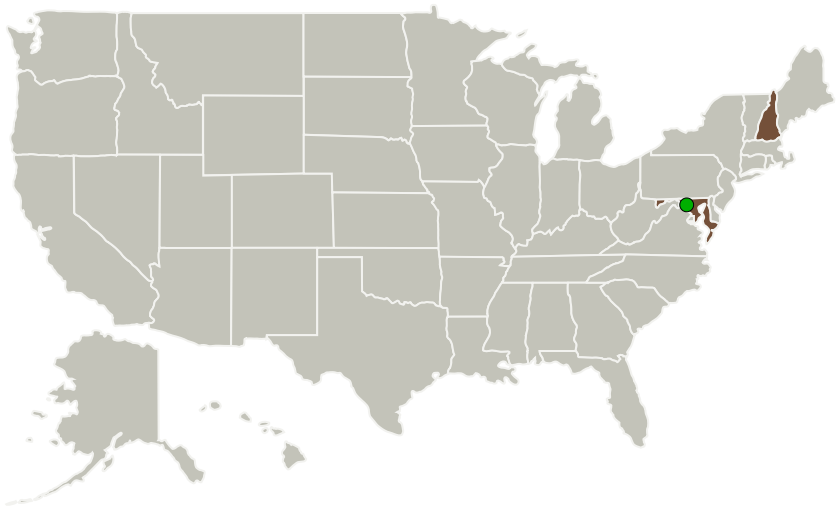
Operationalizing SAR for Agricultural Decision Support, Phase I

Completed Technology Project (2017 - 2017)

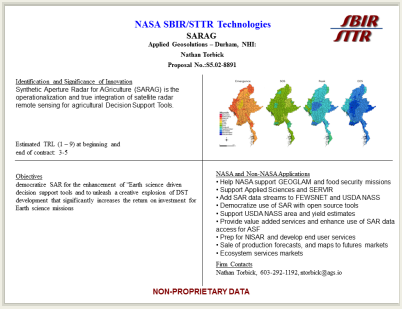
Project Introduction

The innovation of Synthetic Aperture Radar for AGriculture (SARAG) is the operationalization and true integration of satellite radar remote sensing for agricultural monitoring and assessment. While many SAR sensors have been utilized for crop mapping (i.e., ERS-1, ENVISAT ASAR, TerraSAR-X, Radarsat, ALOS-1), no options for cost efficient, systematic, and continental scale data have existed until now. In this new Phase 1 SBIR we are expanding upon current research to integrate SAR products and workflows into global food security Decision Support Tools and expand ecosystem services markets. This effort will support NASA missions, prep for NISAR, and democratize SAR into existing DSTs.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Applied Geosolutions, LLC	Lead Organization	Industry	Durham, New Hampshire
Goddard Space Flight Center(GSFC)	Supporting Organization	NASA Center	Greenbelt, Maryland



Operationalizing SAR for agricultural decision support, Phase I Briefing Chart Image

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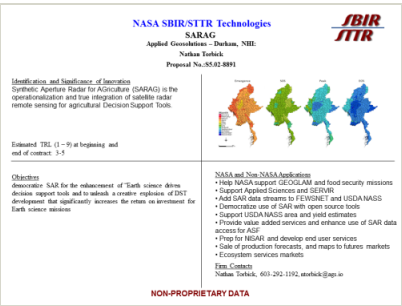
Primary U.S. Work Locations	
Maryland	New Hampshire

Images



Briefing Chart Image
Operationalizing SAR for agricultural decision support, Phase I Briefing Chart Image *(https://techport.nasa.gov/image/127417)*

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Applied Geosolutions, LLC

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

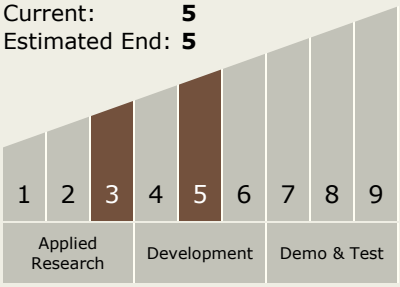
Carlos Torrez

Principal Investigator:

Nathan Torbick

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



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Technology Areas

Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - TX11.6 Ground Computing
    - TX11.6.7 High Performance Data Analytics Platform

Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System